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Cassidy June Alexander

University of Montana, ca104954@umconnect.umt.edu

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COMBATING DEATHS OF DESPAIR IN MONTANA

Cassidy Alexander, University of Montana

QUESTION

What is the effectiveness of efforts to combat suicide rates in Montana at the county level based on community types?

APPROACH

Data was collected from local health agencies, the Substance Abuse and Mental Health Services Administration, Montana’s National Alliance on Mental Illness, the Montana Department of Health and Human Services, the American Communities Project and the University of Wisconsin Population Health Institute.

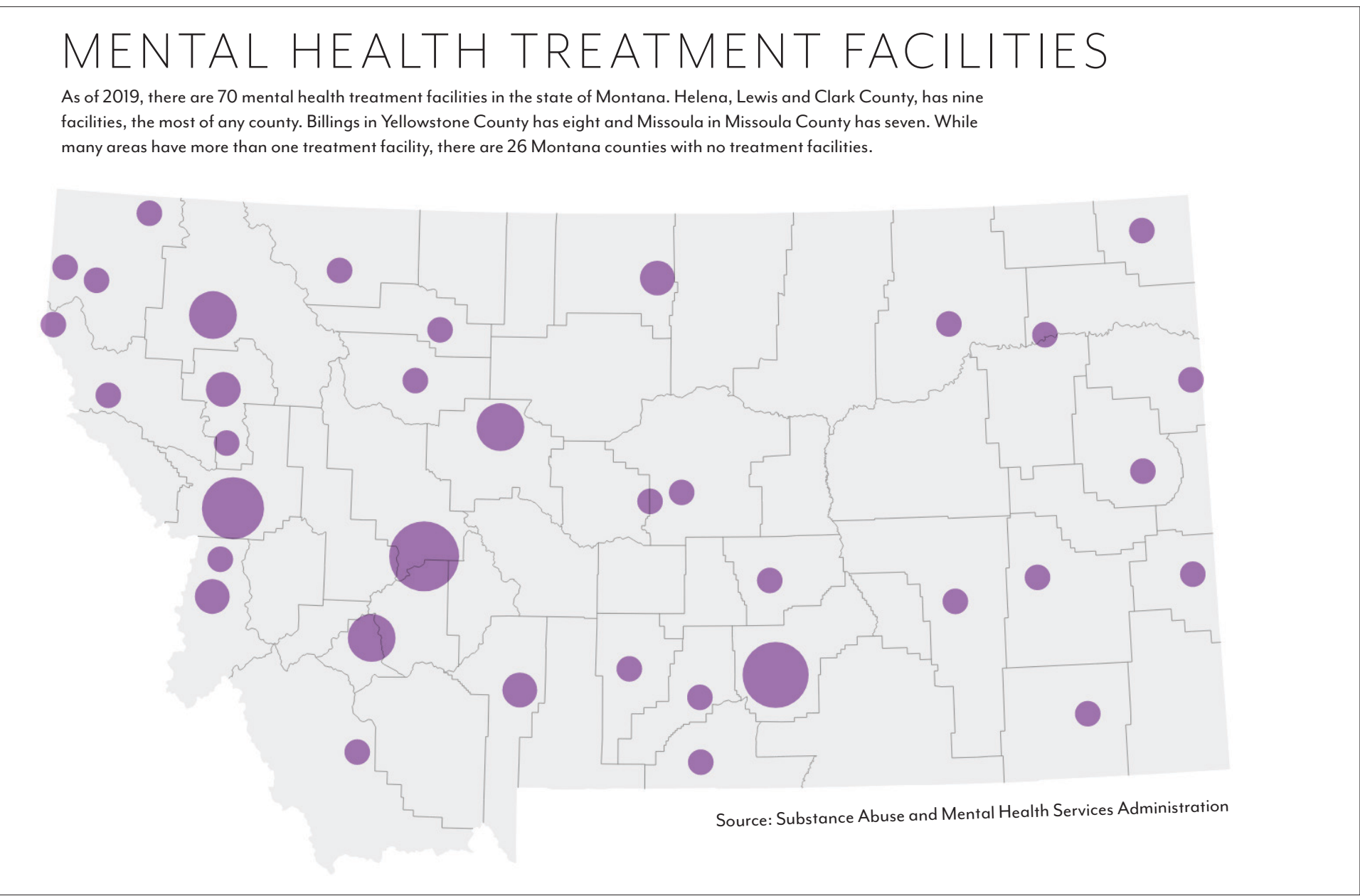
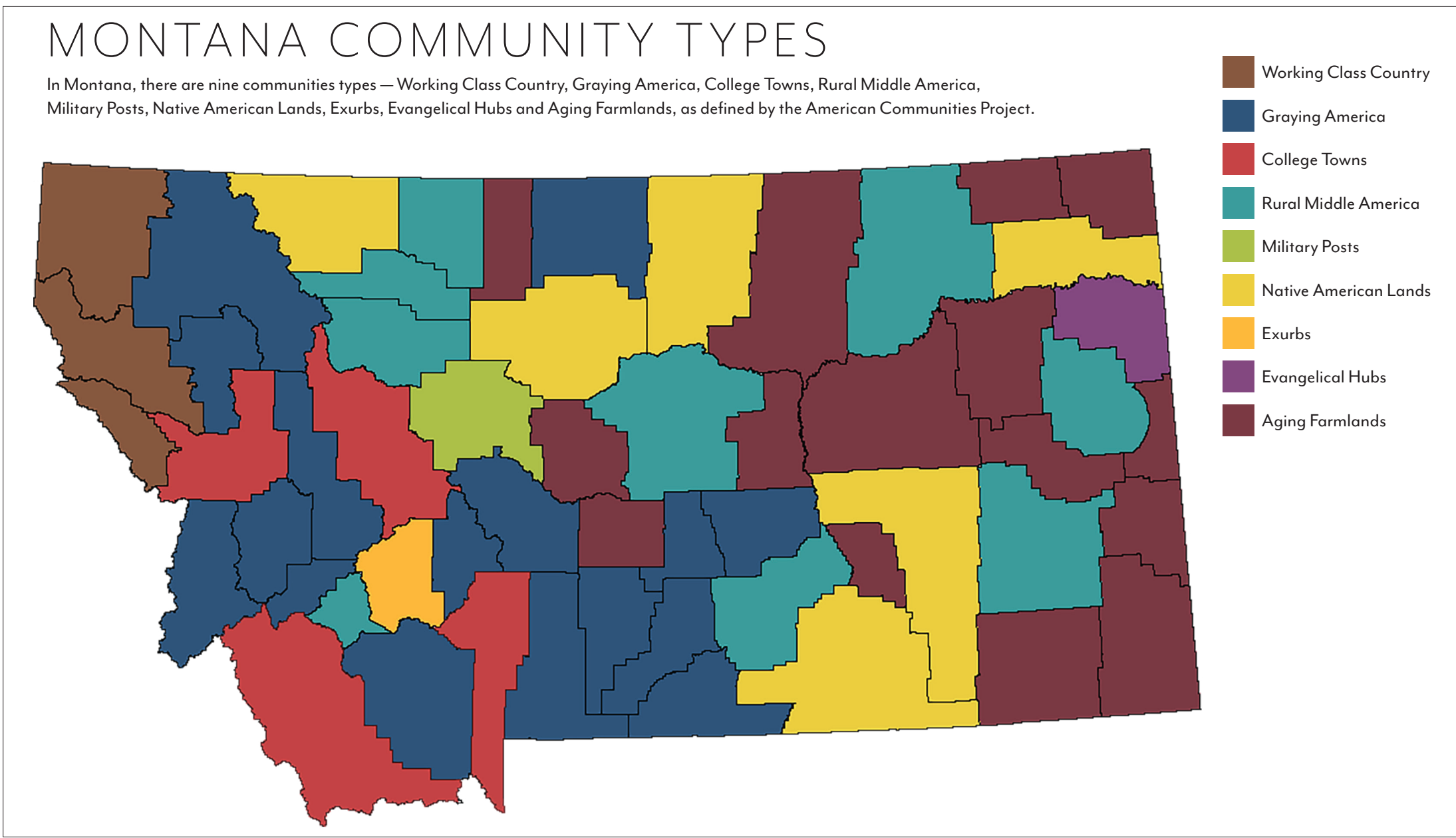
Each Montana county’s community type, population, suicide rate per 1,000 residents, number of mental health treatment facilities, NAMI alliance groups, reported average number of poor mental health days, number of primary care physicians, mental health providers and social associations were considered.

Using linear regression, cluster analysis and variance analysis, it was determined which factors contributed most to lower rates of suicide at the county level. This was compared to the community type of each county to determine if there are significant differences or inequalities.

CONTEXT

Suicide, in addition to alcoholism and drug overdose are known as a death of despair. In 2018, The Commonwealth Fund explored rising trends of deaths of despair at the state level. It found that from 2005 to 2016, the rate of deaths of despair increased in every state and the District of Columbia. Among the highest rates of deaths of despair is Montana. Over the past thirty years, Montana has ranked in the top five for suicides in the nation for all age groups. The youth suicide rate in Montana is nearly triple the national rate of the same age group.

Montana, like much of rural America, is typically painted as one big place filled with similar people facing similar experiences. But in reality, Montana’s geographic, demographic and socioeconomic landscapes are remarkably diverse. The state is made up of nine of the American Communities Project’s community types. These community types, in addition to county-level data of what is being implemented to combat the rising trend of deaths of despair, provide valuable insight into the factors that contribute most to these tragedies.



RESULTS

The factor with the most influence on suicide rates in Montana is community type.

Graying America counties had the highest rate of suicide on average, 3.18 per 1,000 residents. These communities tend to have one mental health treatment facility per 15,000 residents, about half the number of mental health providers of communities of a similar size and more social associations.

Working Class Country counties had the second-highest rate of suicide on average, 2.9 per 1,000 residents. These communities tend to be on par with counties of similar size for mental health facilities and access to primary care physicians. These counties have more mental health providers and about half the number of social associations.

Native American Lands had the third-highest rate of suicide on average, 2.59 per 1,000 residents. These communities tend to have significantly less mental health providers and treatment facilities.

Aging Farmland counties had the lowest rate of suicide, 0.35 per 1,000 residents. These communities tend to be small, around 2,000 residents. Many counties do not have mental health treatment facilities or providers, primary care physicians or social associations.

CONCLUSIONS

Graying America, Working Class Country and Native American Lands counties, while diverse socially, geographically and in resources, all have significant rates of suicide. When considering how to allocate resources at the state level, community types should be heavily considered to combat suicide. By utilizing the information of which resources contribute to lower suicides in each community type, the trend could be combated in a way that is effective for unique and diverse communities.

Montana counties cannot be given resources solely by their population or the amount of money they bring into the state’s economy. Different community types have vastly different needs. The available data supports the idea that efforts to combat suicide in Montana need to be unique to the county and community type.

MONTANA MENTAL HEALTH STATISTICS

County	Community Type	Population	Suicide Rate per 1,000 [†]	Poor Mental Health Days, 2020	Mental Health Treatment Facilities	Mental Health Providers, 2020	NAMI Groups
Madison	Graying America	1,630	<div><div></div></div> 10	3	0	4	0
Meagher	Graying America	1,968	<div><div></div></div> 5	4	0	1	0
Deer Lodge	Graying America	9,100	<div><div></div></div> 4	4	0	43	0
Rosebud	Native American Lands	9,250	<div><div></div></div> 4	4	1	22	0
Roosevelt	Native American Lands	11,228	<div><div></div></div> 4	5	1	21	0
Sweet Grass	Graying America	3,653	<div><div></div></div> 4	3	1	3	0
Park	Graying America	16,246	<div><div></div></div> 3	4	1	42	0
Silver Bow	Rural Middle America	34,814	<div><div></div></div> 3	4	4	189	0
Custer	Rural Middle America	11,845	<div><div></div></div> 3	4	1	42	0
Lincoln	Working Class Country	19,358	<div><div></div></div> 3	4	3	39	0
Mineral	Working Class Country	4,211	<div><div></div></div> 3	4	0	7	0
Sheridan	Aging Farmlands	3,574	<div><div></div></div> 3	3	1	5	0
Granite	Graying America	3,269	<div><div></div></div> 3	4	0	1	0
Stillwater	Graying America	9,410	<div><div></div></div> 3	3	1	5	0
Chouteau	Native American Lands	5,789	<div><div></div></div> 3	4	0	4	0
Powell	Graying America	6,861	<div><div></div></div> 3	4	0	6	0
Lake	Graying America	29,774	<div><div></div></div> 3	4	3	72	0
Ravalli	Graying America	41,902	<div><div></div></div> 3	4	3	90	1
Sanders	Working Class Country	11,521	<div><div></div></div> 3	4	2	36	0
Beaverhead	College Town	9,393	<div><div></div></div> 2	4	1	19	0
Toole	Rural Middle America	4,976	<div><div></div></div> 2	4	0	7	0
Broadwater	Graying America	5,834	<div><div></div></div> 2	4	0	5	0
Fergus	Rural Middle America	11,273	<div><div></div></div> 2	4	1	26	0
Musselshell	Graying America	4,807	<div><div></div></div> 2	4	1	2	0
Carbon	Graying America	10,546	<div><div></div></div> 2	3	1	8	0
Missoula	College Town	115,983	<div><div></div></div> 2	4	7	557	1
Richland	Evangelical Hubs	11,360	<div><div></div></div> 2	3	1	13	0
Phillips	Aging Farmlands	4,124	<div><div></div></div> 2	4	0	4	0
Teton	Rural Middle America	6,080	<div><div></div></div> 2	4	1	6	0
Jefferson	Exurbs	11,778	<div><div></div></div> 2	3	0	10	0
Cascade	Military Post	81,746	<div><div></div></div> 2	4	4	267	1
Hill	Graying America	16,439	<div><div></div></div> 2	4	2	55	1
Flathead	Graying America	98,082	<div><div></div></div> 2	4	4	297	1
Yellowstone	Rural Middle America	157,816	<div><div></div></div> 2	4	8	542	1
Blaine	Native American Lands	6,727	<div><div></div></div> 2	5	0	8	0
Lewis and Clark	College Town	67,077	<div><div></div></div> 2	3	9	314	1
Glacier	Native American Lands	13,699	<div><div></div></div> 2	5	1	23	0
Gallatin	College Town	104,729	<div><div></div></div> 2	3	2	350	1
Big Horn	Native American Lands	13,376	<div><div></div></div> 2	5	0	11	0
Valley	Rural Middle America	7,532	<div><div></div></div> 1	4	1	9	0
Dawson	Rural Middle America	9,191	<div><div></div></div> 1	3	1	18	0
Pondera	Rural Middle America	6,044	<div><div></div></div> 1	4	1	8	0
Carter	Aging Farmlands	1,318	<div><div></div></div> 0	4	0	0	0
Daniels	Aging Farmlands	1,753	<div><div></div></div> 0	3	0	0	0
Fallon	Aging Farmlands	2,838	<div><div></div></div> 0	3	1	0	0
Garfield	Aging Farmlands	1,141	<div><div></div></div> 0	3	0	1	0
Golden Valley	Graying America	724	<div><div></div></div> 0	4	0	0	0
Judith Basin	Aging Farmlands	1,951	<div><div></div></div> 0	4	0	1	0
Liberty	Aging Farmlands	2,280	<div><div></div></div> 0	3	0	0	0
McCone	Aging Farmlands	8,218	<div><div></div></div> 0	3	0	0	0
Petroleum	Aging Farmlands	432	<div><div></div></div> 0	4	0	0	0
Powder River	Aging Farmlands	1,619	<div><div></div></div> 0	4	1	0	0
Prairie	Aging Farmlands	1,342	<div><div></div></div> 0	3	0	0	0
Treasure	Aging Farmlands	777	<div><div></div></div> 0	4	0	0	0
Wheatland	Aging Farmlands	2,149	<div><div></div></div> 0	4	0	2	0
Wibaux	Aging Farmlands	1,175	<div><div></div></div> 0	4	0	0	0

SUPPORT

Lee Banville, Faculty Mentor
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